Dometic®

EN **Gravity-Discharge Toilet**
Operation manual

500 Series Toilets

Model 111 Toilet

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Specifications

Water Supply	Fitting	0.5 in. NPT
	Flow rate	2.0 gpm / 9.5 lpm minimum
Discharge	Floor flange	3 in./76 mm ID ABS or PVC flange connection directly over waste holding tank

Specifications subject to change without notice.

General Safety Instructions

Caution!
This manual must be read and understood before adjustment, maintenance or service is performed. Modification of this product can result in property damage.

1. Do not use chlorine or caustic chemicals, such as laundry bleach or drain-opening types, in the system. These products damage the seals in toilets and dump valves.
2. Do not permit foreign objects (paper towels, paper cups, diapers, sanitary napkins, etc.) to be flushed through the toilet.
3. Mechanical seal toilets, like Dometic units, are designed to only discharge directly into a holding tank. Horizontal pipe runs as found in conventional residential or commercial plumbing systems cannot be accommodated.
4. Toilet bowl must be regularly cleaned and winterized according to “Cleaning” and “Winterization and Storage” procedures or your warranty coverage may be voided.

Toilet Model Identification

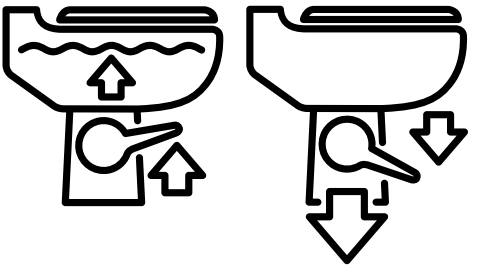
The model identification label is located on the toilet base under the pedestal cover and will show the model number and serial number. Remove base cover to locate identification label (see page 5).

Operation

To prepare the Dometic toilet for use, check to be sure water supply to the toilet is connected. Turn on water supply and check system for leaks. Flush toilet and check for leaks.

To properly use the Dometic toilet, follow these simple instructions:

1. **To add water to the toilet**, lift or raise the flush pedal until desired water level is reached. Generally, more water is required only when flushing solids.
2. **To flush toilet**, push pedal all the way down until contents leave toilet bowl. Water flow pressures vary at different locations, therefore holding the flush pedal down for 4-8 seconds may be required. Minimum flow at the toilet of two gpm (7.6 lpm) is required for proper rim and bowl wash.



3. Release flush pedal by allowing it to snap back, which permits positive sealing around the flush ball.
4. A small amount of water should remain in bowl.

Note
Holding flush pedal down longer than necessary results in excessive water use.

Installation

1. To replace an older toilet, turn off water supply to toilet. Disconnect water line at toilet water valve. Unscrew floor bolt nuts and remove toilet. Discard old floor seal and mounting bolts. The old floor flange may be used if it is in good condition and has fastener holes that are positioned correctly. Make sure center of floor flange is at least 11 inches (279 mm) from back wall (Figure A).

   NOTE: If old floor flange cannot be used and cannot be removed, please use a SeaLand Universal Mounting Kit, available from your Dometic dealer.
2. When installing new floor flange, make certain that the toilet mounting bolts align properly with Dometic toilet mounting pattern.
3. Secure flange to floor using flat head screws through countersunk holes in flange. Insert floor bolts into slotted holes in flange (Figure B).
4. If toilet is being installed in a shower stall, apply a 1/4" thick by 3/4" wide bead of glazing compound around the circumference of the floor flange (Figure C).
5. Dometic toilet models 111, 510 and 511 will accept handicap or household decorative seats. Remove existing seat and replace with new seat if desired.
6. Position floor seal by pressing the floor bolts up through holes in the seal.
7. Set toilet in place with bolts protruding up through mounting holes in base (Figure D).
8. Install washers and hex nuts provided with toilet. Tighten nuts down equally with standard 7/16" open end wrench. Remove excess glazing compound from around base in shower stall installation.
9. Connect water supply line to water valve (1/2" NPT) inlet using appropriate fittings or an extension (Figure E).
10. Turn on water supply and flush toilet to test for leaks.
11. Attach pedestal and pedal covers to toilet base (see instructions below).

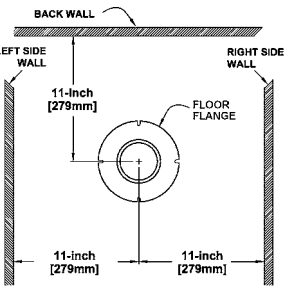


Fig. A

Fig. B

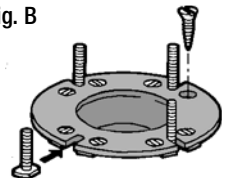


Fig. C

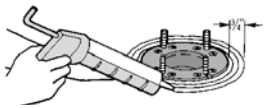


Fig. D

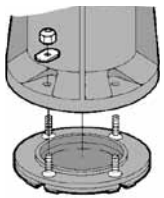
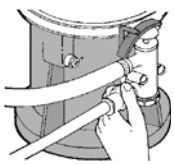
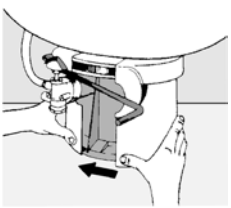


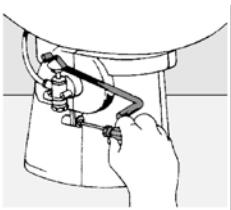
Fig. E



Attaching Pedestal and Pedal Cover

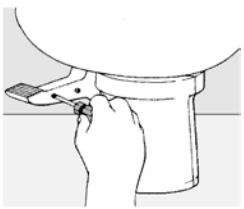


1. Wrap pedestal cover around base so that it closes as shown.



2. Tall model – screw cover together. Short model – snap together.

3. Slide pedal cover onto foot pedal rod.



4. Secure side plate onto pedal cover with screws.

Cleaning

Fig. A

For routine cleaning, use SeaLand® Toilet Bowl Cleaner. If this cleaner cannot be found in your area, contact Dometic for your nearest dealer. If the cleaner is not available, use most any non-abrasive bathroom and toilet bowl cleaner. Please follow label instructions.

FLUSH BALL CLEANING: After a period of time, mineral deposits from hard water may build up on the flush ball or seal, resulting in a slow water leak. To prevent this, periodically clean the flush ball and seal.

1. Remove minor debris from the flush ball and seal by slowly pressing and releasing the flush pedal several times. This will loosen and rinse debris from the surfaces. Repeat several times for stubborn buildup.
2. If step 1 does not fully clean the ball and seal, clean with a soft bristle brush and SeaLand Toilet Bowl Cleaner. Turn off water supply to toilet. Fully clean the top of the flush ball and under the seal where it contacts the flush ball.
3. After cleaning underside of seal, apply light downward pressure to top of seal while brushing around full perimeter of seal.
4. Turn on water supply. Press flush lever to open flush ball, and use brush and water to rinse away cleanser and loosened deposits.

Winterization and Storage

When a Dometic toilet is stored for long periods of time or may be exposed to temperatures below freezing, the toilet must be winterized or stored according to one of the following procedures.

Caution
This toilet is not intended for use when exposed to temperatures below freezing.

Caution
Never use automotive-type antifreeze (ethylene glycol) in freshwater systems.

Note
Use nontoxic antifreeze (propylene glycol) designated for potable water systems. (See vehicle owner's manual.)

Storage options

Non-toxic Antifreeze Winterization (recommended method)

1. Pour antifreeze in potable water tank according to instructions from antifreeze manufacturer.
2. Flush toilet several times until antifreeze has flowed completely through toilet. For toilets with hand sprayer, the hand sprayer must be turned on to assure antifreeze is cycled through the sprayer.

Drain Water from Toilet

1. Turn off water supply to toilet.
2. Remove water supply line from water valve.
3. Place a small container under water valve inlet to catch draining water.
4. Press flush pedal and allow water to completely drain from water valve and vacuum breaker.
5. Leave water line disconnected until threat of freezing temperature has passed.

Note
Never leave vehicle or premises unoccupied for extended periods of time with municipal water supply or onboard water pump turned on when there is a possibility of freezing temperature.

Caution
Toilet warranty does not cover freeze damaged water valve that may result from improper winterization.

Deodorants and Special Tissue

A gravity-discharge toilet system requires the regular addition of a deodorant product to reduce waste tank malodors and to help break down holding tank contents. Several factors should be considered in selecting a deodorant product.

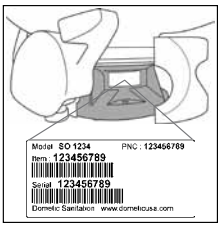
Liquid or Granulated. Liquid products work more quickly by readily going into solution. Granulated powder formulations require less storage space and are less likely to leak if the package is inadvertently damaged.

How Much Deodorant and How to Add It. The deodorant is added directly into the toilet bowl, then flushed into the holding tank. Follow bottle or package instructions. Conditions of extremely warm weather, longer waste holding time and larger tank capacities may require more deodorant treatment. To maintain optimum odor control, the holding tank should be cleaned thoroughly at least once or more each season depending on use.

Why Not Use Household Toilet Paper in Your Toilet. Household tissues often contain adhesives which bond together the paper fibers from which the tissue is made. The adhesives prevent the tissue from breaking apart, and their use in “ultra-low flow” systems can cause system clogging. SeaLand tissue is especially designed for use in low water toilet systems.
Its rapid dissolving properties minimize the amount of residual paper in the holding tank and allow deodorizers to work more efficiently.

SeaLand and Dometic Brands versus Other Brands. We constantly strive to provide our system owners with effective products that have minimal environmental impact and good value. Many deodorant products do not measure up to our standards of performance and value.

Customer Service



Toilet model identification

The toilet model identification label is located on the toilet base under the pedestal cover. Please have this information ready if contacting Dometic for customer service.

Contact information

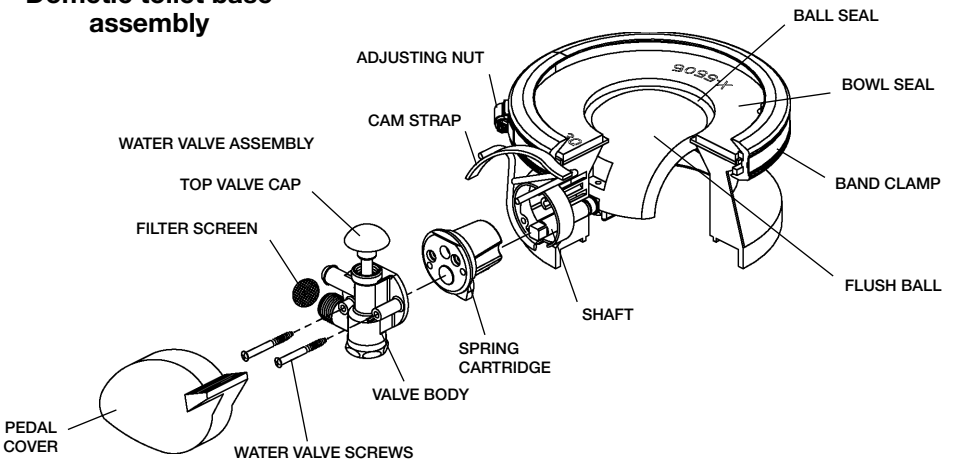
There is a strong, worldwide network to assist in servicing and maintaining your toilet system. For the Authorized Service Center near you, please call from 8:00 a.m. to 5:00 p.m. (ET) Monday through Friday.

You may also contact or have your local dealer contact the Parts Distributor nearest you for quick response to your replacement parts needs. They carry a complete inventory for the Dometic product line.

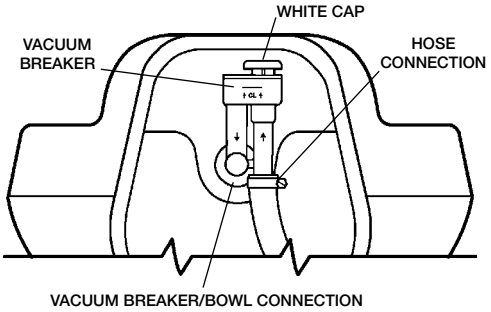
Telephone:	1-800-321-9886	U.S.A. and Canada
	330-439-5550	International
Fax:	330-496-3097	U.S.A. and Canada
	330-439-5567	International
Web site:	http://www.Dometic.com	

Troubleshooting Guide

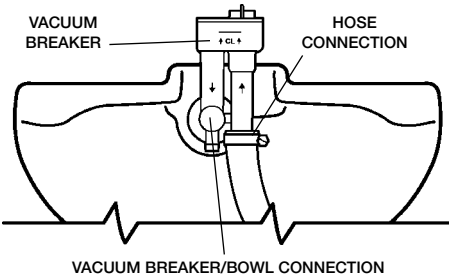
Dometic toilet base assembly



Toilet bowl, rear view (Models 510+, 511+)



Toilet bowl, rear view (Model 111)



Problem	Possible Cause	Service Instructio
1. Toilet emits odor (flush ball open).	a. Odor emitting from base of toilet. b. Plugged holding tank vent line.	a. Use SeaLand brand deodorants. b. Clear obstruction from vent line.
2. Water will not stay in bowl.	a. Loose band clamp. b. Improper seal around flush ball due to dirt or debris on flush ball. c. Worn or damaged seal. d. Worn or damaged flush ball.	a. Tighten band clamp fastener. b. Inspect flush ball for foreign debris. Clean flush ball if needed. c. Replace seal. d. Replace flush ball.
3. Flush ball will not open.	a. Broken shaft. b. Shaft not fully engaged in the spring cartridge.	a. Replace shaft. b. Rotate flush ball slightly until shaft lines up with square in spring cartridge and is fully engaged.

Problem	Possible Cause	Service Instructio
4. Flush ball does not open completely. **(Applies to short-base units installed on a step or riser.)**	a. Floor flange interferes with flush ball rotation.	a. Loosen mounting bolts and push toilet base back. If this does not solve issue, install a Dometic Universal Mounting Kit (item no. 385310139 or 385319140) with existing floor flange.
5. Flush ball will not close completely.	a. Too much friction between flush ball and ball seal. b. Water valve screws are too tight. c. Defective spring cartridge.	a. Lubricate between flush ball and seal with lubricant (e.g. silicone spray, furniture polish). b. Loosen screws slightly. c. Check spring tension by pushing flush lever down, then release it suddenly. If lever does not snap back to original position, replace spring cartridge.
6. Water does not shut off in toilet (toilet overflows).	a. Not enough clearance between cam strap and top of water valve cap. b. Dirt lodged in water valve seal. c. Worn or defective water valve. d. Worn or defective spring cartridge.	a. Adjust cam strap to have .02" - .06" (.5mm - 1.5mm) clearance with top of water valve cap. b. Dissassemble and clean water valve. c. Replace water valve. d. Replace spring cartridge.
7. Hand sprayer leaks.	a. Hand sprayer is defective.	a. Replace hand sprayer.
8. Water does not enter toilet bowl properly.	a. Insufficient water flow rate at toilet. b. Water valve clogged. c. Plugged rim wash holes in toilet.	a. Check water flow rate at toilet. Rate should be 2 gpm (7.6 lpm) at toilet. b. Remove and clean screen located on water valve. c. Clean holes. If still a problem, replace toilet bowl.
9. Water is leaking from water valve.	a. Water valve body cracked due to freeze damage. b. Water line connection is loose or not seated properly. c. Defective water valve. d. Stripped threads.	a. Replace water valve. b. Insure that threads are not cross-threaded and tighten. c. Replace water valve. d. Replace water valve.
10. Water is leaking from bottom of toilet base.	a. Toilet is not secured to floor. b. Worn or defective toilet mounting floor seal. c. Cracked base. d. Worn or defective floor flange.	a. Tighten toilet mounting bolts. b. Replace floor seal between floor flange and toilet base. c. Replace base assembly. d. Replace floor flange.
11. Water is leaking from rear of toilet.	a. Loose vacuum breaker. b. Damaged or defective vacuum breaker. c. Cracked or defective toilet bowl.	a. Make sure vacuum breaker stem is pushed fully into sealing grommet in back of bowl. b. Remove white cap from vacuum breaker. Flush toilet. If water leaks during flush, vacuum breaker needs to be replaced. c. Replace toilet.
12. Water is leaking from the base/toilet connection.	a. Band clamp may be loose. b. Ball/bowl seals may be worn or defective.	a. Remove plastic base cover (on applicable models) and tighten band clamp fastener. b. Replace ball/bowl seals.

Dometic®

Limited Warranty

THE SELLER NAMED BELOW MAKES THE FOLLOWING WARRANTY WITH RESPECT TO DOMETIC GRAVITY-FLUSH MODELS 510+, 510PS, 511, 511PS, AND 111 ONLY

1. TWO-YEAR LIMITED WARRANTY

1A. This Limited Warranty will be in effect for two years from the date of purchase.

1B. This Limited Warranty is made only to the First Purchaser (hereinafter called the "Original Purchaser") who acquired the product for Original Purchaser's personal, family, or household-type use. The Original Purchaser should retain a copy of the sales receipt or invoice as evidence of the date of purchase because proof of purchase is required to obtain warranty service.

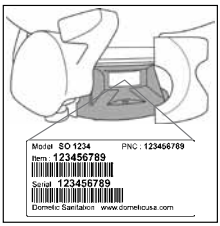
1C. If this product is placed in commercial or business use, it will be warranted, to the Original Purchaser only, to be free of defects in material and workmanship for a period of 90 days from the date of purchase.

1D. This warranty covers all parts of the Dometic toilet which is warranted to be free of defects in material and workmanship under normal use. This warranty does not cover conditions unrelated to the material and workmanship of the product. Such unrelated conditions include, but are not limited to, (a) faulty installation and any damage resulting from such; (b) the need for normal maintenance and any damage resulting from failure to provide such maintenance; (c) failure to follow Seller's instructions for use of this product, including failure which may result from not following winterization procedures; (d) any accident that results in damage to this product; (e) scratching or staining of any ceramic or plastic component; and (f) acts of God, or misuse of any part of this product and any alteration by anyone other than the Seller.

1E. For Original Purchaser (ONLY) to obtain the benefits of this Warranty during the 2-year period (for personal use) or 90-day period (for commercial use), the following shall apply:

(a) Original Purchaser shall contact the local dealer from whom the product was purchased; or contact the Seller Customer Service Department at 1-800-321-9886 (8 a.m.-5 p.m. ET, USA) and provide the local dealer or Seller Customer Service Department with sales receipt or invoice, product model and serial number from product. The product model identification label is located on the toilet base under the pedestal cover (see illustration).

(b) If product, while still under warranty, is returned to local dealer where purchased, the local dealer will repair, replace or refund the product per this Warranty and as authorized by the Seller. Seller will provide necessary replacement parts or product free of charge to Original Purchaser, including freight on such replacement parts or product, and Seller will pay direct labor charges for such repair or replacement.



Location of product ID label

(c) Under no circumstances will Seller pay or be liable for any of Original Purchaser's or dealer's travel charges or other expenses associated with bringing the product or recreation vehicle to the dealer for repair, for providing dealer with access to the product or vehicle, or for downtime of the product or vehicle.

(d) Original Purchaser may be required to return defective product or parts when requested by Seller; in such event, Seller will pay related freight costs.

2. THE SELLER DOES NOT AUTHORIZE ANY PERSON OR COMPANY TO CREATE OR EXTEND ANY WARRANTY OBLIGATIONS OR LIABILITY ON ITS BEHALF.

3. REPAIR OR REPLACEMENT OF, OR REFUND FOR, DEFECTIVE PRODUCT, AT SELLER'S OPTION, SHALL BE THE ORIGINAL PURCHASER'S SOLE REMEDY UNDER THIS LIMITED WARRANTY. IN NO EVENT SHALL SELLER BE LIABLE FOR PURCHASER'S INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

4. SELLER DISCLAIMS ALL OTHER WARRANTIES WITH RESPECT TO THE PRODUCT, WHETHER EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES OR HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

5. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

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